Single-Molecule Kinetics of λ Exonuclease Reveal Base Dependence and Dynamic Disorder

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Movie S1

Display of movement of tethered beads as a result of enzymatic conversion of their DNA tether from double-stranded to single-stranded DNA. Of the five beads shown, one shows enzymatic activity directly after introducing the enzyme (start of movie). After ~ 600 seconds (one-third of the movie), the enzymatic activity terminates due to dissociation of the λ exonuclease from the DNA. At this point, enzyme is again introduced into the flow cell, after which three beads show movement. Only every 20^{th} acquired frame is shown. The image size corresponds to ~ 40 × ~ 30 μm^2; the total time displayed in the movie is 2000 seconds.